

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1- 29 (Cancelled)

30. (Previously Presented) A method for evaluating an orientation of a molecular array having features arranged in a pattern, the method comprising:

(a) receiving an image of the molecular array produced by scanning the molecular array to determine data signals emanating from discrete positions on a surface of the molecular array;

(b) calculating an actual result of a function on pixels of the image lying in a second pattern;

(c) comparing the result of step (b) with an expected result which would be obtained if the second pattern had a predetermined orientation on the array; and

(d) when the results of the comparison in step (c) are outside a predetermined difference, then altering the orientation of the second pattern on the array and repeating steps (b) and (c), and repeating the foregoing as needed until the results of the comparison are within the predetermined difference.

31. (Previously Presented) The method of claim 30 wherein:

the features are arranged in a rectilinear grid and the pattern comprises a rectilinear grid of rows and columns; and

step (b) comprises calculating row and column vectors by summing pixels in the rows and columns.

Claims 32-33 (Cancelled)